



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,793	07/30/2003	Yoshitaka Terao	P56905	9415

7590

12/11/2006

Robert E. Bushnell
Suite 300
1522 K Street, N.W.
Washington, DC 20005

EXAMINER

WILLIAMS, JOSEPH L

ART UNIT	PAPER NUMBER
----------	--------------

2879

DATE MAILED: 12/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/629,793

Applicant(s)

TERAO ET AL.

Examiner

Joseph L. Williams

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-21 is/are pending in the application.
- 4a) Of the above claim(s) 5-9 and 15-20 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10, 11 and 13 is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4, 12 and 21 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/13/06 & 4/24/06 & 5/10/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Claims 5-9 and 15-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Group, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 09 May 2005.

Applicant's election with traverse of claims 1-4 and 10-14 in the reply filed on 09 May 2005 is acknowledged. The traversal is on the ground(s) that 1) that the Examiner's alternative method would not result in the claimed structure; 2) the classification of method and device are not proper; and 3) the claims are directed towards the same embodiment. This is not found persuasive because 1) the substrate could be pre-heated at a lower temperature than needed to bond as to aid in the bonding process; 2) even though there are method and device patents in the same class/subclass, and even though at times it may be proper to search both method and device classes/subclasses, restriction based upon method and device claims is a well established and proper practice (in this case it has been well established in the Manual of Classification that class 313 is primarily for the structure of a discharge device and class 445 is the method of manufacturing of a discharge device; and 3) the Examiner respectfully disagrees that the embodiments are the same. The structure of the plasma display and the distinctly claimed method steps are separate and patentable distinct and thus restriction of the embodiments is appropriate.

The requirement is still deemed proper and is therefore made FINAL.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 recites the limitation "each protrusion" in line 1. There is no antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ha (US 6,437,507) in view of Aoki et al. (US 5,951,350).

Regarding claim 1, Ha ('507) teaches in figure 5 a plasma display panel, comprising: a first (21) and a second (22) transparent substrate opposing one another; a plurality of first electrodes (26) arranged in parallel and arranged on the first transparent substrate; a plurality of second electrodes (24) arranged in parallel and arranged on the second transparent substrate, the second electrodes being arranged perpendicular to the first electrodes; and a plurality of concave portions arranged in said second transparent plate, each concave portion corresponding to a concave surface, wherein corresponding ones of said plurality of second electrodes are arranged at bottoms of corresponding ones of said plurality of concave portions, with ridges arranged between adjacent concave portions.

Ha ('507) does not teach the top surface of each ridge being of a water repellant film.

Further regarding claim 1, Aoki ('350) teaches in figure 19, a plasma display device comprised of, in part, a water repellant film (110) for the purpose of absorption of water and thus increase the lifetime of the display.

Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the water repellant film of Aoki in the display of Ha for the purpose of absorption of water and thus increase the lifetime of the display.

Art Unit: 2879

Regarding claim 3, Ha ('507) teaches each of the second electrode comprises a flat top surface that is parallel to the top surface of each ridge, the top surface of each second electrode being bounded by the concave portions.

Regarding claim 4, Ha ('507) teaches a phosphor material (25) within the concave portions, the phosphor material being on top of the second electrodes.

Regarding claim 21, please note that the claimed method steps are product by process limitations. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

Furthermore, it is well established that a claimed apparatus cannot be distinguished over the prior art by a process limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject product-by-process claim limitation is not afforded patentable weight (see MPEP 2113).

Allowable Subject Matter

5. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record neither shows nor suggest a plasma display device comprised of, in part, a second electrode comprising a convex bottom surface that mates with an entire portion of the concave surface of the substrate, along with the other limitations of the claim.

Claims 10, 11, and 13 are allowed.

The following is an examiner's statement of reasons for allowance: The prior art of record neither shows nor suggest a plasma display device comprised of, in part, a second electrode comprising a convex bottom surface along with the other limitations of the claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

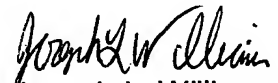
Art Unit: 2879

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Williams whose telephone number is (571) 272-2465. The examiner can normally be reached on M-F (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Joseph L. Williams
Primary Examiner
Art Unit 2879